INTERFERENCE STUDY OF Co ON IRON DETERMINATION WITH 1,10-PHENANTHROLINE AT pH 4.5 BY SPECTROPHOTOMETRY UV-VIS METHOD

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Abstract
Iron determination is carried out using sodium thiosulphate (Na₂S₂O₃) as a reducing agent and 1,10-phenanthroline as a ligand at pH 4.5 by spectrophotometry UV-Vis method. This complex giving a maximum wavelength at 511 nm and could be interfered by Co²⁺ ion. Co(II) addition from 0-10 ppm can decrease the absorption and start to interfered at 0.2 ppm with % recovery as 94.11%. This result is out of the %recovery range that allowed (95%-105%).

Keyword : Iron, 1,10-phenanthroline, Co(II)